Northwest Science

Volume 47, 1973

Bruce V. Ettling, Editor

Published by Northwest Scientific Association and Washington State University Press

Contents

Number 1 (February)

Modern Pollen Spectra from Mount Rainier, Washington 1
Calvin J. Heusser

Factors Affecting Dispersal of Dwarf Mistletoe Seeds from an Overstory Western Hemlock Tree 9
R. B. Smith

The "Black Crust" Phenomenon in Upper Glacier Bay, Alaska 20
Ian A. Worley

Vegetation Patterns of the National Reactor Testing Station, Southeastern Idaho 30
Roy O. Harniss and Neil E. West

Behavior of Winter Annuals as Influenced by Microtopography and Elevation 44
W. H. Rickard, J. F. Cline, and R. O. Gilbert

The Magnitude of Snowmelt and Rainfall Interception by Litter in Lodgepole Pine and Spruce-Fir Forests in Wyoming 50
James F. Reynolds and Dennis H. Knight

The Effect of Leaching the Fertilizer Band on Nutrient Uptake and Growth of Sweet Corn 61
A. S. Baker and W. P. Mortensen

Preliminary Inventory of Fishes in Hangman Creek 66
Philip H. Laumeyer and O. Eugene Maughan

Aspects of Cold Adaptation in the Coyote 70
Thomas F. Ogle

Number 2 (May)

Broadcast Burning of Logging Residues and the Water Repellency of Soils 77
Norbert V. DeByle

Conifer Growth under Different Light Environments in the Siskiyou Mountains of Southwestern Oregon 88
W. H. Emmingham and R. H. Waring

Aspen Root Suckering in Alaska: Effect of Clone, Collection Date, and Temperature 100
John C. Zasada and George A. Schier

New Plant Records and Ranges for Washington 105
George W. Douglas, Dorothy B. Naas, and Ralph W. Naas

Freeze-Branding for Individually Marking the Banana Slug: **Ariolimax columbianus** G. 109
Klaus O. Richter

Population Characteristics of Northern Idaho White-Tailed Deer, 1969-1971 114
Gary C. Will

Distribution of the Dusky-Footed Woodrat, **Neotoma fuscipes** Baird, in Klamath and Lake Counties, Oregon
E. Wayne Hammer and Chris Maser 123

Distribution and Reproduction of Shrews in Grand Teton National Park, Wyoming
Tim W. Clark 128

Association News 132

Number 3 (August)

Pollen Evidence of Changing Land Use around the Shores of Lake Washington
Margaret Bryan Davis 133

Lichens and Bryophytes of a Willamette Valley Oak Forest
Lawrence H. Pike 149

The Effects of Mine and Domestic Wastes on Microinvertebrate Community Structure in the Coeur d'Alene River
Nancy L. Savage and Fred W. Rabe 159

Contributions to the Flora of Washington. II
Ronald J. Taylor, George W. Douglas, and Leona M. Sundquist 169

Distribution of Mercury in Sediments of the Nooksack River Drainage
R. S. Babcock and N. I. Kolby 180

Multiple Deformation of Cambrian Rocks in the Kootenay Arc, near Northport, Stevens County, Washington
Joseph W. Mills and Harold E. Nordstrom 185

Number 4 (November)

Suspended Solids Carried by the Gallatin River of Southwestern Montana I. Amounts Carried during Spring Runoff
M. G. Klages, L. D. Logan, and Y. P. Hsieh 203

Soil beneath Shrub Halophytes and Its Influence upon the Growth of Cheatgrass
W. H. Rickard, J. F. Cline, and R. O. Gilbert 213

Population Structure, Growth and Size of Larval **Dicamptodon ensatus** (Eschscholtz)
Ronald A. Nussbaum and Glen W. Clothier 218

The Cascade Frog, **Rana cascadae,** in the North Coast Range of California
R. Bruce Bury 228

The Scales of the Native Freshwater Fish Families of Washington
Richard W. Casteel 230

Fossil Giant Tortoise of Genus **Geochelone** from the Late Miocene-Early Pliocene of North-Central Oregon
Willis E. Fry 239

Hunting Success on Northern Idaho White-Tailed Deer, 1969-1971
Gary C. Will 250

Association News 255

Response of the Oregon Creeping Vole to the Clearcutting of a Douglas-Fir Forest
Edward F. Hooven 256

Subalpine Fir (**Abies lasiocarpa**) in Coastal Western North America
Ian A. Worley and Dennis Jaques 265